

Low Impact Development for Roads

Military Road S. at S. 272nd Street

PROJECT NEED

Congestion and safety concerns at the intersection of Military Road S. and S. 272nd Street prompted this roadway improvement project. Its primary goals are to improve pedestrian and traffic safety, as well as to increase the intersection's operating efficiency.

PROJECT DESCRIPTION

The intersection improvement project will add an eastbound right-turn lane and a second northbound left-turn lane, as well as provide sidewalk improvements at all four corners. Illumination, traffic signals, and traffic cameras will also be upgraded. Stormwater management for the new turn lanes and sidewalks will be improved by constructing porous concrete sidewalks and an onsite bioretention facility/rain garden.

WATER QUALITY AND HYDROLOGY

Stormwater from the intersection is currently captured and conveyed untreated to nearby Star Lake. Stormwater management rules require that pollutants from the impervious surface added by this project be reduced. Low Impact Development measures were employed to meet these requirements, as well as to reduce runoff generated from these new surfaces.

BENEFITS

Transportation

- Increases intersection efficiency
- Improves traffic and pedestrian safety

Environmental

- The porous concrete sidewalks facilitate stormwater infiltration onsite
- The bioretention facility promotes stormwater interception, retention, evaporation, and transpiration, as well as removes some stormwater pollutants

LOW IMPACT DEVELOPMENT GRANT

King County received a \$424,375 grant through the Washington Department of Ecology's Water Quality Program Low Impact Development (LID) Stormwater Management Grant Program to help fund this project.

The program funds local-government projects designed to meet stormwater management needs and protect or restore water quality. LID sites have fewer impervious surfaces and use vegetation, healthy soils, permeable pavement, dispersion, and other techniques to manage stormwater.

VITAL STATISTICS

- 14,800 square feet of impervious surface will be added from the new construction
- Construction includes 1,100 square yards of porous concrete sidewalks
- The bioretention facility is 285 feet long, covers 0.12 acre, and will be planted with four native species
- Overall construction cost is \$1.1 million
- The grant supports monitoring the performance of the porous sidewalks and bioretention facility for three years

PROJECT SCHEDULE

Construction Start	June 2007
Bioretention Facility	June-August 2007
Porous Sidewalks	July-August 2007
Construction Completed	September 2007
Bioretention Facility Planting	Fall 2007

